



UNITED STATES PATENT AND TRADEMARK OFFICE

cev
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,235	11/26/2001	Helena O'Shea	010403	9661

23696 7590 06/01/2007
QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER

NGUYEN, TOAN D

ART UNIT	PAPER NUMBER
----------	--------------

2616

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

06/01/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kaskanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary	Application No. 09/995,235	Applicant(s) O'SHEA, HELENA	
	Examiner Toan D. Nguyen	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Allowable Subject Matter

2. The indicated allowability of claims 22-31 are withdrawn in view of the newly discovered reference(s) to Bradley (US 6,996,158), Shohara (US 6,463,266), and Muller (US 6,845,238). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 22-28, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradley (US 6,996,158) in view of Shohara (US 6,463,266).

For claim 22, Bradley discloses signal detection using a CDMA receiver, comprising:

a first receiver (figure 2A, reference 50, col. 6 line 63) to receive a first signal from a first carrier, the first receiver comprising a first frequency tracking loop (figure 2A, reference 100) to obtain frequency estimation information relating to the first signal (col. 8 lines 37-39); and

a second receiver (figure 2A, reference 53, col. 6 line 64) to receive a second signal from a second carrier, the second receiver comprising a GSM detection and

channel estimation (figure 4, reference 302, col. 10 lines 47-48) to obtain frequency estimation information relating to the second signal as a function of the frequency estimation information relating to the first signal (figure 5, reference 328, col. 11 lines 64-66).

However, Bradley does not expressly disclose a frequency tracking loop. In an analogous art, Shohara discloses a frequency tracking loop (figure 1, reference 100, col. 9 line 6).

Shohara discloses wherein at least one of the first and second frequency estimation information comprises a frequency offset (col. 5 lines 42-45 as set forth in claim 24), wherein at least one of the first and second frequency tracking loops configures a voltage-controlled, temperature-compensated crystal oscillator (col. 8 line 57-58 as set forth in claim 25), and wherein at least one of the first and second frequency tracking loops configures a rotator (col. 9 line 4 as set forth in claim 26).

One skilled in the art would have recognized the frequency tracking loop, and would have applied Shohara's automatic frequency control 100 in Bradley's GSM detection and channel estimation function 302. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Shohara's radio frequency control for communications system in Bradley's signal detection using a CDMA receiver with the motivation being to produce a sequence of frequency offset commands for the downlink and uplink phase rotators in a Type 2 AFC tracking loop configuration (figure 5, col. 16 lines 39-42).

For claim 23, Bradley discloses wherein the first frequency tracking loop is configured to obtain the frequency estimation information relating to the first signal as a function of the frequency estimation information relating to the second signal (figure 5, reference 328, col. 11 lines 64-66).

For claim 27, Bradley discloses wherein at least one of the first and second receivers is configured to obtain handover information during an allocated time slot (col. 11 lines 62-66).

For claim 28, Bradley discloses wherein the handover information comprises at least one of received signal code power (RSCP), signal-to-interference ratio (SIR), and a received signal strength indicator (RSSI)(col. 4 lines 43-44).

For claim 30, Bradley discloses wherein at least one of the first and second receivers comprises a RAKE receiver (figure 2A, reference 50, col. 6 line 63).

For claim 31, Bradley discloses wherein at least one of the first and second receivers comprises a GSM receiver (figure 2A, reference 53, col. 6 line 64).

5. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bradley (US 6,996,158) in view of Shohara (US 6,463,266) further in view of Muller (US 6,845,238).

For claim 29, Bradley in view of Shohara does not expressly disclose wherein the allocated time slot occurs during a compressed mode. In an analogous art, Muller discloses wherein the allocated time slot occurs during a compressed mode (col. 19 line 23).

One skilled in the art would have recognized the compressed mode, and would have applied Muller's compressed mode in Bradley's digital signal processor portion 48. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Muller's inter-frequency measurement and handover for wireless communications in Bradley's signal detection using a CDMA receiver with the motivation being to compress mode some slots (e.g., frames), such as F_G , are used for measurements (col. 19 lines 23-24).

Response to Arguments

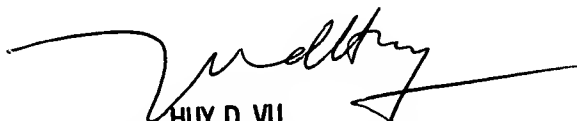
6. Applicant's arguments with respect to claims 22-31 have been considered but are moot in view of the new ground(s) of rejection.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D. Nguyen whose telephone number is 571-272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TN
TN

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600